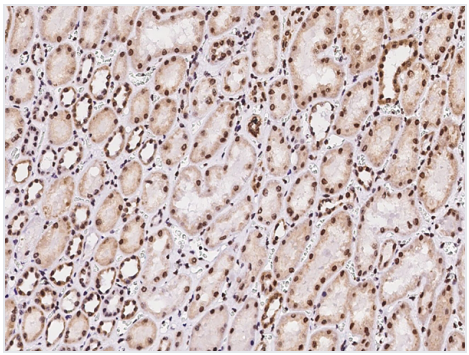
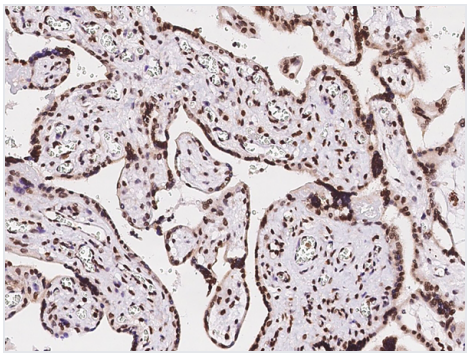
MBD5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

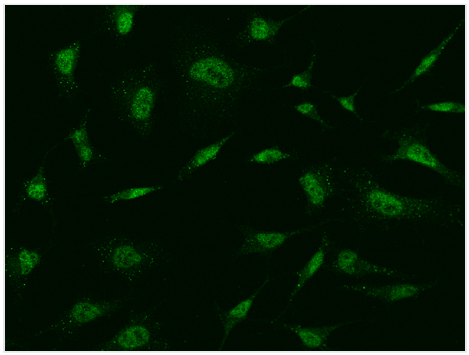
Product Name	MBD5, Polyclonal Antibody
Full Product Name	Anti-MBD5 Antibody, Rabbit Polyclonal
Product Gene Name	anti-MBD5 antibody
Product Synonym Names	MBD5 Antibody, Rabbit PAb, Antigen Affinity Purified; Anti-MRD1 Antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; 0.2um filtered solution in PBS
Purity/Purification	Protein A & Antigen Affinity
Specificity	Human MBD5
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Molecular Weight	1494
OMIM	phenotype 611472
3D Structure	ModBase 3D Structure for Q9P267
Immunogen	A synthetic peptide corresponding to the center region of the Human MBD5
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with a synthetic peptide corresponding to the center region of the Human MBD5, and purified by antigen affinity chromatography.
Applications Tested/Suitable for anti-MBD5 antibody	Immunohistochemistry-Paraffin (IHC-P), Immunocytochemistry (ICC), Immunofluorescence (IF)
Application Notes for anti-MBD5 antibody	IHC-P: 1:100-1:500 ICC/IF: 1:300-1:10,000
Related Product Information for anti-MBD5 antibody	MBD5 (Methyl-CpG-binding domain 5) is a critical gene for normal development. Microdeletions of 2q23.1 disrupting MBD5 and loss of function mutations of MBD5 cause MBD5-Associated Neurodevelopmental disorders (MAND).MBD5-associated neurodevelopmental disorder (MAND) is an umbrella term that describes a group of disorders, 2q23.1 deletion syndrome, 2q23.1 duplication syndrome, and MBD5 variants, that affect the function of methyl-binding domain 5 (MBD5) and share a common set of neurodevelopmental, cognitive, and behavioral impairments. Methyl-CpG-binding domain 5 (MBD5)-associated neurodevelopmental disorder caused by 2q23.1 or MBD5-specific mutation has been recently identified as a genetic disorder associated with autism spectrum disorders. MBD5 haploinsufficiency is a neurodevelopmental disorder characterized by global developmental delay/intellectual disability (ID), severe speech impairment, seizures, sleep disturbances, and abnormal behaviors.
Other Notes	Small volumes of anti-MBD5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MBD5 purchase	MBS8103148 is an antibody targeting MBD5. Also known as Anti-MBD5 Antibody, Rabbit Polyclonal. Reactive in Human. Host: Rabbit.



Immunohistochemistry (IHC) of anti-MBD5 antibody
Immunochemical staining of human MBD5 in human kidney with rabbit polyclonal antibody at 1:200 dilution, formalin-fixed paraffin embedded sections.



Immunohistochemistry (IHC) of anti-MBD5 antibody
Immunochemical staining of human MBD5 in human placenta with rabbit polyclonal antibody at 1:200 dilution, formalin-fixed paraffin embedded sections.



Immunofluorescence (IF) of anti-MBD5 antibody
Immunofluorescence staining of MBD5 in HeLa cells. Cells were fixed with 4% PFA, permeabilzed with 0.1% Triton X-100 in PBS,blocked with 10% serum, and incubated with rabbit anti-Human MBD5 polyclonal antibody (dilution ratio 1:1000) at 4 degree C overnight. Then cells were stained with the Alexa Fluor488-conjugated Goat Anti-rabbit IgG secondary antibody (green). Positive staining was localized to Nucleus.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MBD5. It may not necessarily be applicable to this product.

NCBI GI #	296439306
NCBI GeneID	55777
NCBI Accession #	Q9P267.3
UniProt Primary Accession #	Q9P267
UniProt Secondary Accession #	Q53SR1; Q9NUV6; A5HMQ4; A7E2B1
UniProt Related Accession #	Q9P267
NCBI Official Full Name	Methyl-CpG-binding domain protein 5
NCBI Official Synonym Full Names	methyl-CpG binding domain protein 5
NCBI Official Symbol	MBD5
NCBI Official Synonym Symbols	MRD1
UniProt Protein Name	Methyl-CpG-binding domain protein 5
UniProt Synonym Protein Names	Methyl-CpG-binding protein MBD5
Protein Family	Methyl-CpG-binding domain-containing protein
UniProt Gene Name	MBD5
UniProt Synonym Gene Names	KIAA1461

UniProt Entry Name	MBD5_HUMAN
NCBI Protein Information	methyl-CpG-binding domain protein 5; methyl-CpG-binding protein MBD5
NCBI Summary for MBD5	This gene encodes a member of the methyl-CpG-binding domain (MBD) family. The MBD consists of about 70 residues and is the minimal region required for a methyl-CpG-binding protein binding specifically to methylated DNA. In addition to the MBD domain, this protein contains a PWWP domain (Pro-Trp-Trp-Pro motif), which consists of 100-150 amino acids and is found in numerous proteins that are involved in cell division, growth and differentiation. Mutations in this gene cause mental retardation autosomal dominant type 1. Haploinsufficiency of this gene is associated with a syndrome involving microcephaly, intellectual disabilities, severe speech impairment, and seizures. Alternatively spliced transcript variants have been found, but their full-length nature is not determined. [provided by RefSeq, Mar 2010]
UniProt Comments for MBD5	MBD5: Binds to heterochromatin. Does not interact with either methylated or unmethylated DNA (in vitro). Defects in MBD5 are the cause of mental retardation autosomal dominant type 1 (MRD1). Mental retardation is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptative behavior and manifested during the developmental period. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Unknown function Chromosomal Location of Human Ortholog: 2q23.1 Cellular Component: nucleus; chromocenter Molecular Function: DNA binding; chromatin binding Biological Process: nervous system development; regulation of multicellular organism growth; glucose homeostasis Disease: Mental Retardation, Autosomal Dominant 1
Research Articles on MBD5	**1.** study demonstrates that haploinsufficiency of MBD5 causes diverse phenotypes, yields insight into the spectrum of resulting neurodevelopmental and behavioral psychopathology and provides clinical context for interpretation of MBD5 structural variations.
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